

Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) A method of embedding auxiliary data in a host signal, the method comprising the steps of:
 - using a predetermined data embedding method having a given embedding rate and distortion to produce a composite signal;
 - using a portion of said embedding rate to accommodate restoration data identifying the host signal conditioned on said composite signal; and
 - using the remaining embedding rate for embedding said auxiliary data.
2. (Original) A method as claimed in claim 1, comprising the steps of:
 - dividing the host signal into successive segments;
 - applying the predetermined data embedding method to said segments;
 - accommodating in a segment the restoration data for a previous segment.
3. (Original) A method as claimed in claim 2, wherein each segment comprises the restoration data for said previous segment as well as auxiliary data.
4. (Original) A method as claimed in claim 2, comprising the steps of:
 - (a) accommodating auxiliary data only in a segment of a given length;
 - (b) accommodating, in a subsequent segment, restoration data only for the previous segment
 - (c) adapting the length of said subsequent segment to the amount of restoration data being embedded therein;
 - (d) repeating steps (b) and (c) a predetermined number of times.

5. (Original) A method as claimed in claim 4, wherein said step (d) comprises repeating steps (b) and (c) until the length of the subsequent segment is smaller than a predetermined threshold.

6. (Currently amended) An arrangement for embedding auxiliary data-~~(w)~~ in a host signal-~~(X)~~, the arrangement comprising:
a predetermined data embedder-~~(23)~~ having a given embedding rate and distortion to produce a composite signal-~~(Y)~~ with embedded data-~~(d)~~;
means-~~(24,25)~~ for generating restoration data-~~(r)~~ identifying the host signal-~~(X)~~ conditioned on the composite signal-~~(Y)~~; and
means-~~(26)~~ for accommodating said restoration data-~~(r)~~ in a portion of said embedded data-~~(d)~~ and said auxiliary data-~~(w)~~ in the remaining portion of said embedded data.

7. (Currently amended) A method of reconstructing a host signal from a composite signal representing a distorted version of said host signal with data embedded therein, the method comprising the steps of:

retrieving the embedded data from the composite signal;
splitting the embedded data into restoration data and auxiliary data, the restoration data identifying distorted symbols in the distorted version of the host signal; and

reconstructing the host signal using the reconstruction data, given the composite signal.

8. (Original) A method as claimed in claim 7, comprising the steps of:
dividing the composite signal into successive segments;
using the restoration data accommodated in a segment for reconstructing a previous segment of the host signal.

9. (Original) A method as claimed in claim 8, wherein each segment of the composite signal comprises the restoration data for said previous segment of the host signal as well as auxiliary data.

10. (Currently amended) An arrangement for reconstructing a host signal ~~(X)~~ from a composite signal ~~(Y)~~ representing a distorted version of said host signal with data ~~(d)~~ embedded therein, the arrangement comprising:

means ~~(43)~~ for retrieving the embedded data ~~(d)~~ from the composite signal ~~(Y)~~;

splitting means ~~(44)~~ for splitting the embedded data ~~(d)~~ into restoration data ~~(r)~~ and auxiliary data ~~(w)~~;

reconstruction means ~~(46)~~ for reconstructing the host signal ~~(X)~~ using the reconstruction data ~~(r)~~, given the composite signal ~~(Y)~~.

11. (Currently amended) A composite information signal (Y) with computer readable medium that includes a composite signal that includes a host signal with distortion, and embedded data (d) comprising restoration data (r) and auxiliary data (w), said restoration data identifying the distortion of a the host signal (X) conditioned on said composite signal.

12. (New) A method comprising:

receiving content data, and

embedding auxiliary data and reconstruction data into segments of the content data by modifying symbols of the segments,

wherein

the reconstruction data includes an identification of modified symbols of the segments, to facilitate a reconstruction of the symbols of the segments to their original form in the content data.

13. (New) The method of claim 12, wherein the modifying of each symbol includes applying a select distortion of a plurality of distortions, and the reconstruction data includes an identification of the select distortion applied to each symbol.

14. (New) The method of claim 13, wherein the segments occur sequentially, and the reconstruction data in a first segment includes the identification of the modified symbols of a prior segment.

15. (New) The method of claim 14, including adapting a length of the first segment based on a length of the restoration data of the prior segment in the first segment.

16. (New) The method of claim 14, including selectively avoiding the embedding of the auxiliary data in the first segment based on a length of the restoration data.

17. (New) A method comprising:

receiving modified content data that includes modified segments of original content data,

processing the modified segments to obtain auxiliary data and reconstruction data that identifies modified symbols in the modified segments, and

reconstructing the original content data based on the reconstruction data.

18. (New) The method of claim 17, wherein the modified segments occur sequentially and the reconstruction data in a first modified segment identifies the modified symbols in a prior modified segment.

19. (New) The method of claim 17, wherein each modified symbol corresponds to a select distortion of a plurality of distortions of a symbol in the original content data, and the reconstruction data includes an identification of the select distortion for each modified symbol.

20. (New) A computer readable media that is suitable for processing by a processor to effect a rendering of content material, including:

unmodified segments of the content material, and

modified segments of the content material that includes embedded auxiliary data and reconstruction data,

wherein the reconstruction data includes an identification of modified symbols of the modified segments that allow the processor to:

reconstruct second unmodified segments of the content material,

create a combination of the first and second unmodified segments, and

render the combination to effect a distortion-free rendering of the content material.